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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,955	07/25/2000	Kazuyuki Murata	10873.108USD3	7440

7590   07/29/2003

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EXAMINER
LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 April 2003_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _31-47_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _31-47_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _12,13_	6) ☐ Other: .

DETAILED ACTION

Notice to Applicant (s)

1.   This action is responsive to the following communications: amendment C filed on

4/3/03.

2.   This application has been reconsidered. Claims 31-47 are pending.

Priority

3.   .Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No.

08/719,796, filed on 9/25/1996.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

5.   Claims 31, 32, 34, 39, 40, 41 and 43 are rejected under 35 U.S.C. 102(b) as

being anticipated by Nagashima (US 4,719,516).

With regard to claim 31, Nagashima discloses a printer (digital image processing

unit 2) comprising: means (printer 23) for printing an image according to image data (col

2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26)

output control parameters (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –

col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line

64 –col 3, line 1) when the medium is connected to the means for retrieving (non-

volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an

operation condition of said printing means according to the output control parameters

(which reads on executing the programs stored in non-volatile storage 3) (col 4, lines

11-18); and means (system controller 20) for controlling the printing means according to

the operation condition so that the printing means can print and image according to the

image data (col 4, lines 4-18); wherein data reading from the removable storage

medium (non-volatile storage 3) is enabled and data writing to the medium is disabled

when the medium is connected to the printer (which reads on a write-in inhibit (col 4,

lines 19-64).

With regard to claim 32, Nagashima also discloses wherein the removable

storage medium is a memory card (col 2, lines 59-61; col 3, lines 18-22).

With regard to claim 34, Nagashima also discloses a means (erasable PROM)

for erasing the image data and output control parameters stored in the removable

storage medium, after printing the image data (which reads on the non-volatile storage

being composed of an electrically erasable PROM and instructing whether an erasure of

program or data is possible according to the stored content, and making it selectable)

(col 3, lines 18-22; col 4, lines 29-34).

With regard to claim 39, Nagashima discloses a method for performing

operations on a printer (digital image processing unit 2) (which reads on executing the

programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of:

retrieving (col 4, lines 19-26) output control parameters (col 2, line 64 –col 3, line 1) and

image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control parameters (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18); wherein data reading from the removable storage medium (non-volatile storage 3) is enabled and data writing to the medium is disabled when the medium is connected to the printer (which reads on a write-in inhibit (col 4, lines 19-64).

With regard to claim 40, Nagashima also discloses a step of storing the image data in the removable storage medium (col 2, line 61 – col 3, line 1).

With regard to claim 41, Nagashima also discloses a step of erasing the image data stored in the removable storage medium, after printing the image data (which reads on the non-volatile storage being composed of an electrically erasable PROM and instructing whether an erasure of program or data is possible according to the stored content, and making it selectable) (col 3, lines 18-22; col 4, lines 29-34).

With regard to claim 43, Nagashima also discloses a step of erasing output control parameters stored in the removable storage medium, after printing the image data (which reads on the non-volatile storage being composed of an electrically erasable PROM and instructing whether an erasure of program or data is possible according to the stored content, and making it selectable) (col 3, lines 18-22; col 4, lines 29-34).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 33 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Nagashima (US 4,719,516) in view of Sakata et al. (Sakata) (US 5,105,284).

With regard to claim 33, Nagashima differs from claim 33 in that he does not

clearly teach compressed image data is stored in the removable storage medium and

the printer further comprises means for expanding the compressed image data read out

from the removable storage medium.

Sakata discloses a digital copier wherein compressed image data is stored in the

removable storage medium (col 10, lines 6-36) and the printer further comprises means

(DMAC) for expanding the compressed image data read out from the removable

storage medium (col 11, lines 1-4).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to have modified Nagashima wherein compressed image data is stored

in the removable storage medium and the printer further comprises means for

expanding the compressed image data read out from the removable storage medium as

taught by Sakata. It would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified Nagashima by the teaching of Sakata to enhance

the storage capacity of the image data by storing it in a compressed format as taught by Sakata in col 10, lines 13-36.

With regard to claim 42, Nagashima differs from claim 42 in that he does not clearly teach the steps of storing image data as compressed image data in the removable storage medium; and reading the image data from the removable storage medium by expanding the compressed image data.

Sakata discloses a digital copier wherein the steps of storing image data as compressed image data in the removable storage medium (col 10, lines 6-36) and reading the image data from the removable storage medium by expanding the compressed image data (col 11, lines 1-4).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein the steps of storing image data as compressed image data in the removable storage medium; and reading the image data from the removable storage medium by expanding the compressed image data as taught by Sakata. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Sakata to enhance the storage capacity of the image data by storing it in a compressed format as taught by Sakata in col 10, lines 13-36.

8.   Claims 35-38 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima (US 4,719,516) in view of Itoh (US 5,923,437).

With regard to claim 35, Nagashima discloses a printer (digital image processing unit 2) comprising: means (printer 23) for printing an image according to image data (col 2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26) output control parameters (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 – col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the means for retrieving (non-volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an operation condition of said printing means according to the output control parameters (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and means (system controller 20) for controlling the printing means according to the operation condition so that the printing means can print and image according to the image data (col 4, lines 4-18).

Nagashima differs from claim 35 in that he does not clearly teach a sorter for sorting printed paper; and means for controlling the sorter according to output control parameters stored in the removable storage medium.

Itoh discloses an image processing apparatus wherein a sorter (sorter 220) for sorting printed paper (col 3, lines 56-59); and means (CPU {not shown}) for controlling the sorter according to output control parameters stored in the removable storage medium (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a sorter for sorting printed paper; and means for controlling the sorter according to output control parameters stored in the

removable storage medium as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to 36, Nagashima as modified differs from claim 35 in that he does not clearly teach a means for storing information of functions of the printing means and sorter into the removable storage medium so that the information can be used by an external equipment for generating output control parameters.

Itoh discloses an image processing apparatus wherein a means (computer equipment 901) for storing information of functions of the printing means and sorter into the removable storage medium (external storage device 902) so that the information can be used by an external equipment (external apparatus 3) for generating output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a means for storing information of functions of the printing means and sorter into the removable storage medium so that the information can be used by an external equipment for generating output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 37, Nagashima discloses a printer (digital image processing unit 2) comprising: means (printer 23) for printing an image according to image data (col 2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26) output control parameters (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 – col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the means for retrieving (non-volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an operation condition of said printing means according to the output control parameters (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and means (system controller 20) for controlling the printing means according to the operation condition so that the printing means can print and image according to the image data (col 4, lines 4-18).

Nagashima differs from claim 37 in that he does not clearly teach a finisher for stapling printed paper; and means for controlling the finisher according to output control parameters stored in the removable storage medium.

Itoh discloses an image processing apparatus wherein a finisher (not shown in figures but because stapling can be performed the finisher is inherent) for stapling printed paper (col 5, lines 19-64; col 8, lines 18-22); and means (CPU {not shown}) for controlling the finisher according to output control parameters stored in the removable storage medium (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a finisher for stapling printed

paper; and means for controlling the finisher according to output control parameters stored in the removable storage medium as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 38, Nagashima as modified differs from claim 38 in that he does not clearly teach a means for storing information of functions of the printing means and finisher into the removable storage medium so that the information can be used by an external equipment for generating output control parameters.

Itoh discloses an image processing apparatus wherein a means (computer equipment 901) for storing information of functions of the printing means and finisher into the removable storage medium (external storage device 902) so that the information can be used by an external equipment (external apparatus 3) for generating output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a means for storing information of functions of the printing means and finisher into the removable storage medium so that the information can be used by an external equipment for generating output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so

that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 44, Nagashima discloses a method for performing operations on a printer (digital image processing unit 2) (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of: retrieving (col 4, lines 19-26) output control parameters (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control parameters (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18).

Nagashima differs from claim 44 in that he does not clearly teach sorting the print medium with a sorter according to the output control parameters.

Itoh discloses an image processing apparatus wherein a sorter (sorter 220) for sorting printed paper (col 3, lines 56-59); and sorting the print medium with a sorter according to the output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein sorting the print medium with a sorter according to the output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all

the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 45, Nagashima as modified differs from claim 45 in that he does not clearly teach a step of storing information of functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control parameters.

Itoh discloses an image processing apparatus wherein a step of storing information of functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a step of storing information of functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 46, Nagashima discloses a method for performing operations on a printer (digital image processing unit 2) (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of: retrieving (col 4, lines 19-26) output control parameters (col 2, line 64 –col 3, line 1) and

image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control parameters (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18).

Nagashima differs from claim 46 in that he does not clearly teach stapling the print medium with a finisher according to the output control parameters.

Itoh discloses an image processing apparatus wherein a finisher (not shown in figures but because stapling can be performed the finisher is inherent) for stapling printed paper (col 5, lines 19-64; col 8, lines 18-22); and stapling the print medium with a finisher according to the output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima stapling the print medium with a finisher according to the output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 47, Nagashima as modified differs from claim 47 in that he does not clearly teach a step of storing information of functions of the printer and the

finisher into a removable storage medium so that the information can be used by external equipment for generating output control parameters.

Itoh discloses an image processing apparatus wherein a step of storing information of functions of the printer and the finisher into a removable storage medium so that the information can be used by external equipment for generating output control parameters (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a step of storing information of functions of the printer and the finisher into a removable storage medium so that the information can be used by external equipment for generating output control parameters as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

Response to Arguments

9.   Applicant's arguments filed 4/3/03 have been fully considered but they are not persuasive.

Applicant argues that Nagashima fails to disclose a removable storage medium that stores image data and output control parameters that control printing of the image data, as required by claims 31 and 39.

The present invention is drawn to a printer with the functions of offline image input and output using a removable storage medium. The printer has a means for

retrieving output control parameters and image data stored in removable storage

medium when the medium is connected to the means for retrieving.

Nagashima teaches an image processing apparatus, such as a copier having the

above claimed limitations as will be further detailed below.

Referring to Figure 1, the digital image processing unit (2) reads on the claimed

printer. The digital image processing unit has a storage medium (which reads on non-

volatile storage (3)) that stores output control parameters (which reads on an integral

program which overall facilitates control of the apparatus) (col 2, line 64 – col 3, line 26)

and image data (which reads on the extracted desired portion of the image) (col 2, line

64 – col 3, line 1), interface (I/F) (207) that retrieves output control parameters (which

reads on an integral program) and the image data (which reads on the extracted desired

portion of the image) when the storage medium (non-volatile storage medium (3)) is

connected to the means for retrieving (which reads on non-volatile storage (3) being

connected to the digital processing unit (2)) (col 3, lines 4-7). Nagashima further

expounds on the image data being stored in the non-volatile storage (3) when it

discusses controlling the data reading from a data storage into the non-volatile storage

(3) (col 3, lines61-63).

In view of the above discussion, it is clear that rejections made using Nagashima

meets the limitations, thereby constituting a proper 102 rejection.

Applicant also argues that the combination of Nagashima and Itoh fail to provide

a sorter into the removable storage medium provided in a printer.

Further Nagashima discloses an image processing apparatus such as a copier but is silent to the sorting feature.

Itoh discloses an image processing apparatus such as a copier that includes a sorter that can place the output in different bins.

Therefore combining Nagashima and Itoh would provide an image processing apparatus (copier) that can sort the printed matter and place it in different bins as taught by Itoh. Although the examiner referred to col 5, lines 19-64 of Itoh, which shows that the different output modes could include sorting, stapling and double sided printing among other modes. It is better illustrated in col 3, lines 54-61, which shows that the printed papers can be discharged to different bins.

In view of the above discussion, the motivation to combine Nagashima and Itoh would be proper.

Conclusion

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-

8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-746-6036

for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9314
(for informal or draft communications, such as proposed amendments to be
discussed at an interview; please label such communications "PROPOSED" or
"DRAFT")

or hand-carried to:

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Sixth Floor (Receptionist)

Art Unit: 2622

Twyler Lamb

July 23, 2003

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